

U.S. ENVIRONMENTAL PROTECTION AGENCY
Region VI



West Fertilizer Plant Explosion
Summary of Mobile Air Monitoring Data
Reporting Period 04/20/2013

EPA conducted mobile air monitoring in the residential neighbor hoods surrounding the incident location. EPA monitored for ammonia (NH₃) and volatile organic compounds (VOCs). A summary of the air monitoring data collected during this reporting period is provided below.

Table 1 – Summary of Mobile Air Monitoring Locations

Collection Time	Parameter	Count of Readings	Count of Detects	Average Concentration	Maximum Detection	Units
23:48 - 0:25	NH3	8520	0	0.0	0.0	ppm
	VOC	8520	0	0.0	0.0	ppm
2:02-2:38	NH3	7175	0	0.0	0.0	ppm
	VOC	7175	0	0.0	0.0	ppm
4:17-4:57	NH3	13185	0	0.0	0.0	ppm
	VOC	13185	0	0.0	0.0	ppm
6:10-6:37	NH3	6135	0	0.0	0.0	ppm
	VOC	6135	0	0.0	0.0	ppm
8:00-8:24	NH3	5520	0	0.0	0.0	ppm
	VOC	5520	3	0.0	0.1	ppm
9:53-11:03	NH3	21275	0	0.0	0.0	ppm
	VOC	21275	0	0.0	0.0	ppm
13:33-14:57	NH3	26595	1901	0.0	0.3	ppm
	VOC	26595	301	0.0	0.4	ppm
17:46-18:48	NH3	14490	1095	0.0	0.7	ppm
	VOC	14490	789	0.0	0.5	ppm

The screening level for ammonia is the ATSDR Minimum Risk Level (MRL) of 1.7 ppm. The Agency for Toxic Substances and Disease Registry (ATSDR) has an acute inhalation MRL for ammonia of 1.7 ppm based upon an exposure of 1 to 14 days. The MRL is an estimate of the daily human exposure to a hazardous substance that is likely to be without appreciable risk of adverse, non-cancer health effects over a specified duration of exposure. The information in this MRL serves as a screening tool to help public health professionals decide where to look more closely to evaluate possible risk of adverse health effects from human exposure.

Figure 1 – 23:48-0:25 Mobile Run Track and NH3 Results



Figure 2 – 2:02-2:38 Mobile Run Track and NH3 Results



Figure 3- 4:17-4:57 Mobile Run Track and NH3 Results



Figure 5 – 6:10-6:37 Mobile Run Track and NH3 Results



An aerial photograph of a suburban neighborhood with a green outline highlighting a specific residential area. The map includes various features like houses, streets, a school building, and a sports field. A legend in the bottom left corner explains the color coding for ammonia (NH3) levels detected during an 8 AM run. The legend shows four categories: Non-Detect (green), 0 - 10 ppm (yellow), 10-30 ppm (orange), and > 30 ppm (red). Only one green dot is visible on the map, indicating a non-detect result within the highlighted area.



Legend
10 AM Run
NH3 Results

- Non-Detect
- 0 - 10 ppm
- 10- 30 ppm
- > 30 ppm



Figure 8 – 13:33-14:57 Mobile Run Track and NH3 Results

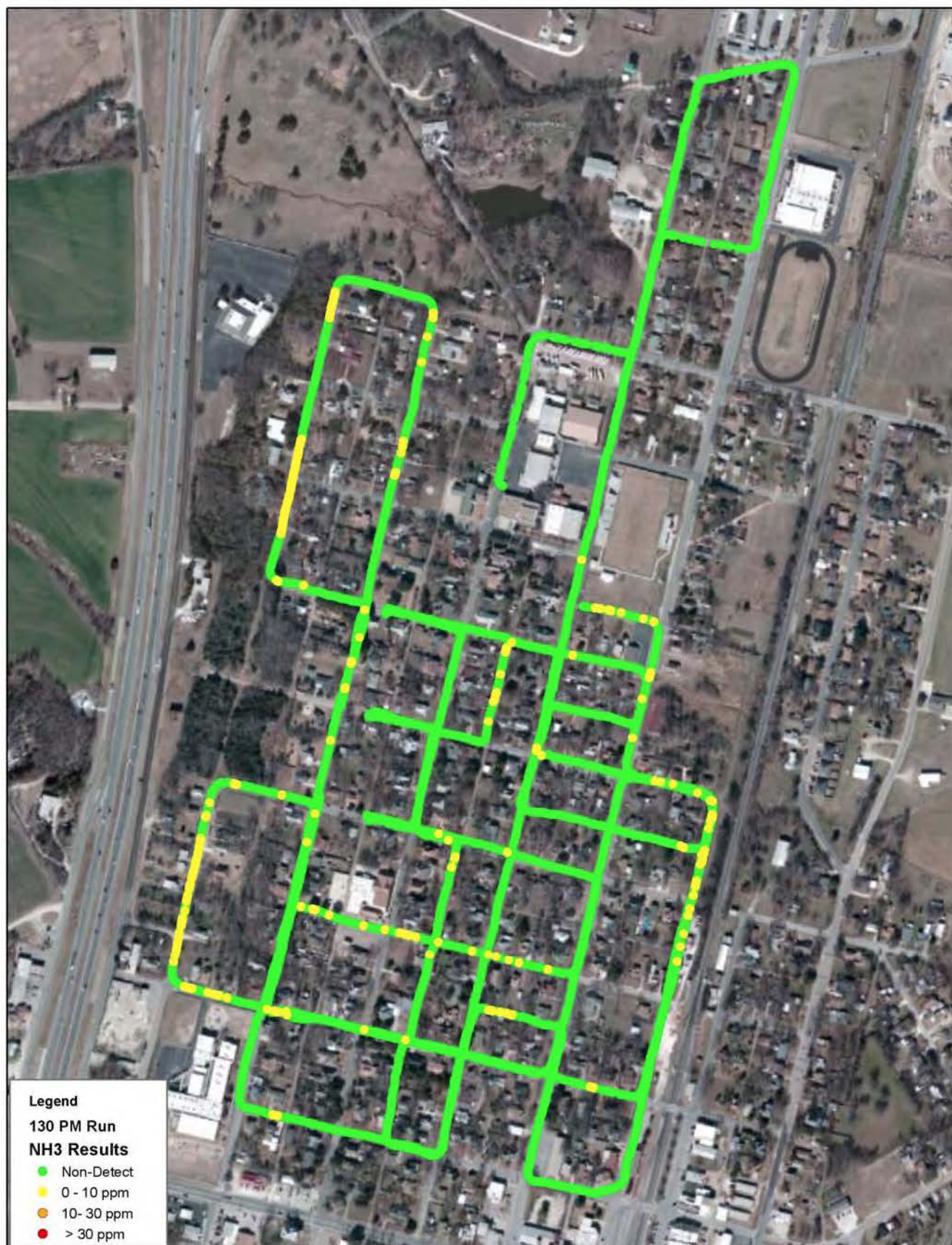


Figure 9– 17:46-18:48 Mobile Run Track and NH3 Results

